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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,148

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Francisco Javier Romero Amaya

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EXAMINER

ORWIG, KEVIN S

ART UNIT

PAPER NUMBER

1611

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/537,148	Applicant(s) ROMERO AMAYA ET AL.	
	Examiner Kevin S. Orwig	Art Unit 1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,6 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6, and 21-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/11/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. The amendments filed on Jun. 11, 2009 have been entered.

Status of the Claims

Claims 1, 2, 5, 6, and 21-26 are pending and are presently under consideration. No claims have been amended. Claims 3, 4, and 7-20 are cancelled. This Office Action is in response to the request for continued examination filed on Jun. 11, 2009.

OBJECTIONS/REJECTIONS WITHDRAWN

The rejection of claims 1, 2, 5, 6, and 21-26 under 35 U.S.C. 103(a) over BUSCHHAUS, ISATO, and SUN is withdrawn upon further consideration. Applicants' arguments regarding this rejection are moot in light of the new grounds of rejection presented herein.

Claim Rejections - 35 USC § 103 (New)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over JAETSCH (U.S. 2001/0027217; Published Oct. 4, 2001; cited in

Office Action dated Jun. 19, 2008) in view of ESSINGER (U.S. 5,665,678; Issued Sep. 9, 1997) and KIRBY (WO 99/18787; Published Apr. 22, 1999).

1. Jaetsch discloses bifenthrin and resin-containing adhesives (i.e. glue) for wooden material or wood composites (title; abstract; paragraphs [0018] and [0027]; Example of execution 5). Jaetsch teaches that it is known to produce plywood and LVL boards etc. with anti-insect, anti-termite, and anti-fungal efficacy by incorporating the appropriate biocides into the adhesive (paragraph [0004]). Jaetsch teaches, *inter alia*, plywood, LVL, and particle boards as examples of wooden materials useful in the invention (paragraph [0032]). Jaetsch teaches that one problem associated with incorporating biocides into adhesives for wood products is that the biocides often cannot disperse sufficiently to achieve the desired efficacy (paragraph [0005]).
2. Jaetsch also discloses various additives included in the formulations of their invention (paragraph [0021]). These additives include anti-fungal agents (paragraphs [0024] and [0025]) and flour, which is a commonly known spreadability enhancer for adhesives (examples 1, 3, and 4). Jaetsch discloses a variety of resins useful in their invention, including melamine-urea copolymer resin, phenol resin, resorcinol resin, urethane resin, and isocyanate resin (paragraph [0018]).
3. Jaetsch is silent as to the particle size of bifenthrin in the adhesive formulation. However, one would have strong motivation to identify the appropriate particle size since Jaetsch notes the prior art problems of dispersability, and correlates dispersability with efficacy of the insecticide-containing adhesive (paragraph [0005]). Thus, one would have looked to the literature for guidance.

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4. As the skilled artisan would have been aware, incorporating hydrophobic pyrethroid compounds such as bifenthrin into aqueous compositions (such as the compositions taught by Jaetsch) is accomplished by forming an emulsion or suspension in which the bifenthrin is dispersed. This is evident from the prior art. For example, Essinger discloses water dispersed formulations of insecticides and teaches that insecticides having low water solubility are frequently formulated as water-dispersed formulations such as wettable powders (WP), water-dispersible granules (WG), suspension concentrates (SC) and the like (title; abstract; col. 1, lines 7-25; col. 4, lines 52-65; claim 1). Essinger teaches that aging stability and suspensability of such formulations requires as small dispersed particle size (e.g. 2-20 μm mean size) and teaches that pyrethroid insecticides such as bifenthrin are useful in the invention (col. 1, lines 26-33; col. 4, line 52 to col. 5, line 3; claims 1, 6, 19, 27, and 32).

5. Furthermore, Kirby discloses methods for dispersing insoluble materials in aqueous solution (abstract). Kirby teaches that active principals such as insecticides are advantageously used in WP, WG, and SC formulations and teaches that bifenthrin is an insecticidal active that is commonly granulated as a powder (p. 16, lines 3-15). Kirby teaches that WP and WG formulations are generally produced by milling the active principal either alone or in combination with excipients to a particle size that is typically in the 5-15 μm range (p. 19, line 17-19; p. 20, lines 6-8). In the case of SC formulations, the mean particle size of the dispersed solid is below 5 μm , more typically in the range of 1-3 μm (p. 23, lines 15-20).

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6. In light of these teachings, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to use a particulate bifenthrin having a mean particle size in the range of 1-15 μm in the wood adhesives taught by Jaetsch. One would have been motivated to do so since Jaetsch discusses potential problems of dispersability of insecticides in adhesives, and correlates dispersability with efficacy of the insecticide-containing adhesive but is silent as to the particle size of bifenthrin in the adhesive formulation. Further, it is well within the skill of the ordinary artisan to well within the ability of one skilled in the art to optimize the particle size of the bifenthrin active ingredient to provide maximal dispersability and thus maximal anti-insecticide effect. One would have had a high expectation of success in doing so since each of the cited references is concerned with dispersability of insecticides (all including bifenthrin). Thus, it appears that it would have been conventional for an artisan to use bifenthrin in the instantly claimed size range and the combination of Jaetsch, Essinger, and Kirby renders claims 1, 2, and 21-25 obvious.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976). In light of the forgoing discussion, the examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a). From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, in the absence of evidence to the contrary, the invention

as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaetsch in view of Essinger, Kirby, as applied to claims 1, 2, and 21-25 above, and further in view of BUSCHHAUS (WO 98/18328; Published May 7, 1998; 5th reference cited on IDS dated Jun. 2, 2005).

7. The teachings of Jaetsch, Essinger, and Kirby are presented *supra*. Jaetsch does not explicitly disclose the useful range of bifenthrin in the compositions and does not teach phenol formaldehyde resins.

8. However, the determination of the amount of insecticide to use in an adhesive for protecting wood against insect pests is clearly a result-effective parameter that would be optimized by the ordinary artisan. The amount of insecticide will vary depending on the type of wood product in which the adhesive is used, the intended use of the wood product (e.g. outdoor, indoor, structural, decorative, etc.), and the species of insect targeted. Determining the optimal amount of bifenthrin would therefore be routine to the skilled artisan. The MPEP states, "Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)."

9. Moreover, Buschhaus discloses insecticide and resin-containing glues and adhesives for plywood and timber materials (abstract; p. 8, lines 7-18). These adhesives also contain other additives, such as flour (i.e. a spreadability additive) and fungicides (p. 8, lines 15-18). Buschhaus teaches the use of insecticide concentrations from 30-104 g ai/m³ (examples 1-5). Thus, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to use bifenthrin in this concentration range in the formulation of Jaetsch to achieve the desired insecticidal effects, rendering claim 5 obvious.

10. Buschhaus also teaches the use of phenol/formaldehyde resins as well as urea/resorcinol resins, which are taught by Jaetsch (p. 8, lines 10-13). Thus, Buschhaus establishes the equivalence of these components and it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to substitute one type of resin for another to prepare an adhesive with the desired properties, rendering claim 6 obvious. The ordinary artisan would have a high expectation of success since Jaetsch teaches similar resins (such as phenol resin) as examples.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jaetsch in view of Essinger, Kirby, as applied to claims 1, 2, and 21-25 above, and further in view of ISATO (JP 8039511; Feb. 2, 1996; 1st reference cited on IDS dated Jun. 2, 2005; translation previously provided).

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11. The teachings of Jaetsch, Essinger, and Kirby are presented *supra*. Jaetsch is silent as to the type of flour included in the formulations. While it is the examiner's position that a skilled artisan would know that the flour taught by Jaetsch is or includes wheat flour, Isato is cited for additional support.

12. Wheat flour is a common additive conventionally used in adhesive formulations. For example, Isato discloses bifenthrin-containing adhesives (i.e. glues) for use with, *inter alia*, wood, plywood, laminated wood and other wood products (abstract; paragraph [0004] of translation). The adhesives disclosed by Isato also contain additives including wheat flour (paragraph [0006] and example of translation). Thus, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to use wheat flour as the flour component in the adhesives of Jaetsch. Claim 26 is rendered obvious.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

U.S. Patent Application No. 10/537,192

Claims 1, 2, 6, 21, 24, and 25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10, 11, 14, 15, and 22 of copending Application No. 10/537,192 in view of in view of Jaetsch, Essinger, Kirby, and . Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the '192 claims renders obvious that of the instant claims. The '192 claims are drawn to a wood product that has been treated with a bifenthrin composition. The composition may include a resin and may thus be an adhesive (i.e. glue) (see '192 claim 7). '192 claims 11, 14, 15, and 22 recite the other limitations of the instantly rejected claims. The '192 claims do not recite a particle size for the bifenthrin. However, by the reasoning applied above, it would be obvious for the skilled artisan to use the instantly claimed particle size per the teachings of Essinger and Kirby.

Claims 1, 2, 6, 21, 24, and 25 are directed to an invention not patentably distinct from claims 10, 11, 14, 15, and 22 of commonly assigned 10/537,192. Specifically, see above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 10/537,192, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35

U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

Conclusion

Claims 1, 2, 5, 6, and 21-26 are rejected. Claims 3, 4, and 7-20 are cancelled.
No claims are currently allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S. Orwig whose telephone number is (571)270-5869. The examiner can normally be reached Monday-Friday 7:00 am-4:00 pm (with alternate Fridays off). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached Monday-Friday 8:00 am-5:00 pm at (571)272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KSO

/David J Blanchard/
Primary Examiner, Art Unit 1643